

**Annual Five Year Review Update
Sand Creek Superfund Site
Denver and Commerce City, Colorado
(Review Date 9/28/2005)**

Brief Site History: The Sand Creek Superfund Site occupies about 550 acres in Denver and Commerce City, Colorado. Four sources of contamination, all now inactive, were known to exist: an oil refinery, a pesticide manufacturing facility, acid pits and a landfill.

EPA conducted sampling at the site and found the soil and groundwater contaminated with volatile organic compounds, pesticides, herbicides and arsenic. Exposure to such contaminated groundwater or soil could cause serious health problems, such as cancer and damage to the liver, central nervous and respiratory systems. People also could be exposed by inhaling contaminated dust and vapors. EPA proposed the site for the Superfund National Priorities List (NPL) in December 1982 and added the site in September 1983. The site was deleted in December 1996.

Cleanup Activities Completed: Construction completion for the site was achieved in 1994. The following cleanup activities were completed:

- Installation of a methane gas collection/treatment system at the landfill in 1991.
- Removal of four buildings, four rail cars, two concrete tanks and steel tanks in 1992.
- Treatment of subsurface soils, using Low Temperature Thermal Treatment in 1994.
- Removal of oily liquids floating on groundwater in two localized areas, using Dual Vapor Extraction in 1995.

Current Status: Current Operation and Maintenance activities include operating the landfill system, maintaining the fence around the landfill, maintaining the vegetative cover over the landfill, and monitoring groundwater throughout the site.

Summary of Protectiveness: EPA Region 8 conducted a third five-year review of the remedial actions implemented at the site. The review was conducted from July through mid-September 2005 and signed on September 28. The results of the five-year review indicate that the remedy is expected to be protective of human health and the environment. Overall, the landfill cover and landfill gas extraction systems are operating and functioning as designed. Groundwater monitoring data suggests that the contaminated groundwater underlying the site has remained within site boundaries.

Issues Impacting Protectiveness: A few issues that do not immediately impact the protectiveness of the remedy were identified. The following table summarizes the status of the follow-up actions addressing these issues.

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Issues	Recommendations/ Follow-Up Actions	Follow-Up Actions (Status/Due Date)	Status of Follow-Up Actions 12/05	Responsible Party
1) Appropriate permanent ICs are needed for all 3 parcels of land in the event that properties are sold.	Work with GSA and other owners to ensure appropriate environmental covenants are written	4 th Quarter 2008		EPA/CDPHE
2) ICs needed that restrict groundwater use and well construction.	Work with local governments to establish permanent ICs.	4 th Quarter 2008		EPA/CDPHE
3) Indoor air sampling for chemical vapors has never been conducted.	Conduct an investigation of human health risk from indoor air pathways in residential area.	4 th Quarter 2006		EPA/ CDPHE
4) Low points in LFGES sub-header lines are restricting drainage.	Locate partial blockages and make the necessary repairs or adjustments.	Ongoing		PRP
5) Increasing contaminant trends in north-northwestern area of the site.	Further investigation needed and possibly additional wells.	4 th Quarter 2007		CDPHE